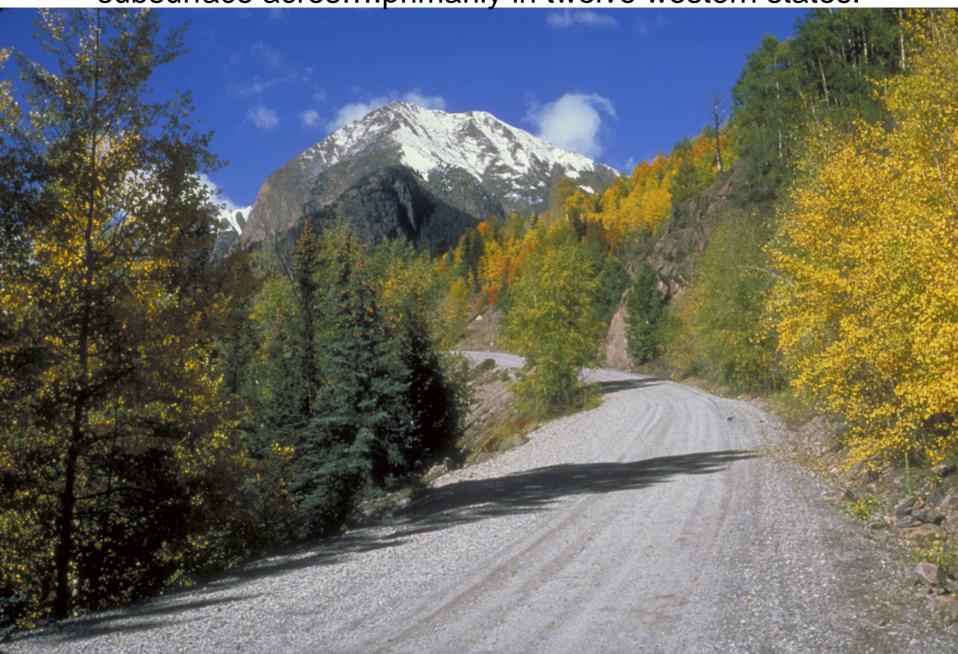
# Public Land Tenure Title & Survey record scanning project



BLM manages 261 million surface acres, and 699 million subsurface acres....primarily in twelve western states.



BLM manages 16 million surface acres in Oregon, and 500,000 surface acres in Washington State.

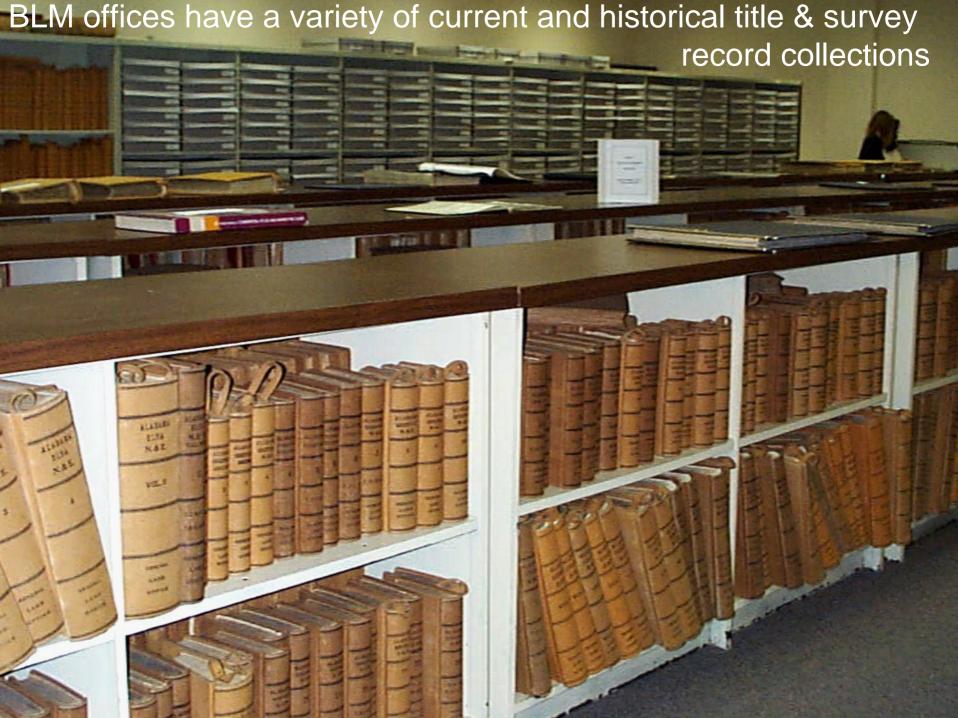


BLM is the modern day successor to the General Land Office.

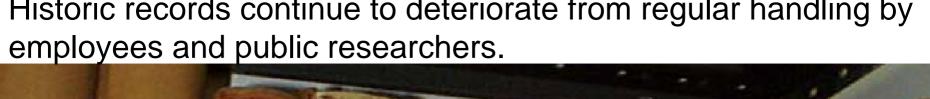


Public land surveys by the GLO (now BLM) in the northwestern U.S. began in 1851, with establishment of the Oregon Territory.





Historic records continue to deteriorate from regular handling by





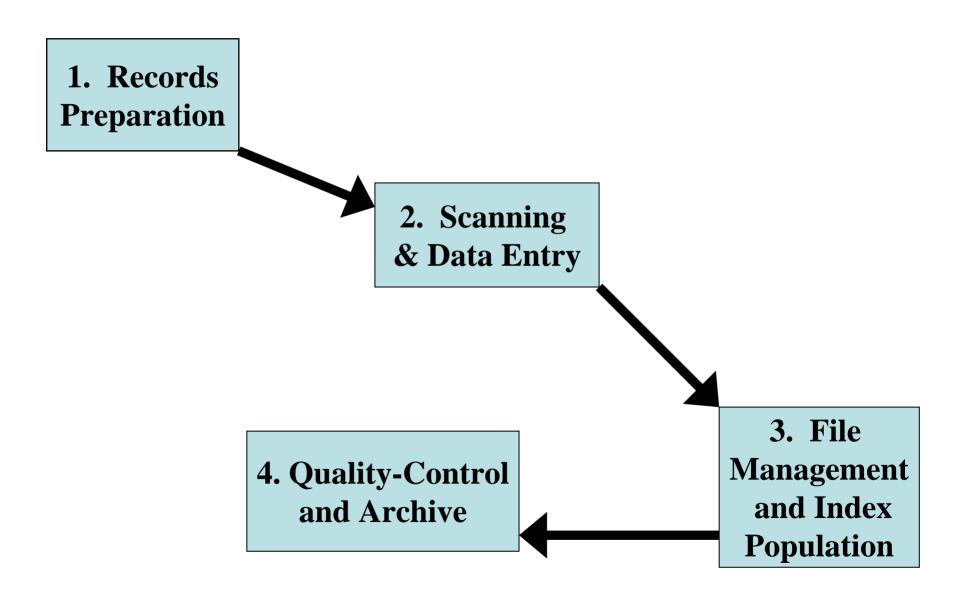
## Scanning Project Origins

- Early 1999: study to evaluate other projects, prioritize target record sets, select technology, and identify internal funding.
- Identified success and failure factors in scanning projects: literature review, and interviews of federal, state and local agency officials with scanning project experience. Contacted NARA for advise and recommendations on standards.
- Late 1999: Selected top three record sets to scanning. Conducted tests of available hardware and software. Tested work processes and file management tools. Ran baseline tests for each record type, using representative samples.

# Scanning Project Goals

- Reduce internal administrative costs for storing records, reproduction equipment, support staff, etc.
- Reduce time and cost to retrieve, duplicate and distribute record copies to employees and customers.
- Preserve original records.
- Facilitate independent customer research of public records.
- Enable migration of dynamic record sets (e.g., Master Title Plats) to geo-spatial environment and ultimate integration with other Arc-GIS data themes.

## Scanning process



## 1. Records Preparation

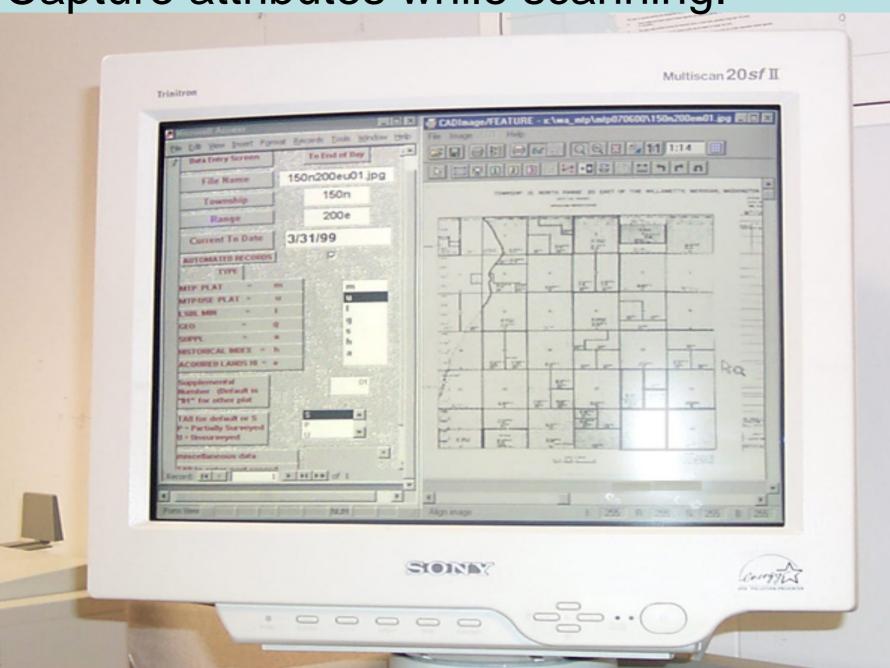
- Inventory documents to be scanned.
- Protective measures for at-risk documents.
- Protective measures for staff and equipment.
- Custodial control during scanning schedule.
- Identify individual staff oversight for the work process, equipment maintenance, scheduling staff for each task, progress reporting, etc.
- Assemble day's work.

# 2. Scanning & Data Entry

- Test and establish settings for each standardized image parameter. Verify on a regular basis.
- Establish image quality standards. Check conformance through regular random sampling.
- Establish file name and domain values; use pick lists to minimize typing errors.
- Script work processes; revise as needed.
- Rotate staff and limit hours.

We noticed that errors dramatically increased after four hours at a task.

Capture attributes while scanning.



# 3. File Management and Index Population

- Pre-populate index keys from existing sources whenever possible.
- Use pick lists if domain extents are known.
- Implement and test backup & recovery plan.

(Don't wait for a breakdown to find out it doesn't work.)

• Establish consistent process for transferring workstation files to the staging server.

# 4. Quality Control and Archive

- Based on error trends identified through random sampling, design reports to highlight errors and anomalous relationships.
- Keep the "archive" set of scanned images separate (physically and logically) from copies available to the public and internal users.
- Complete and verify each record set, and make adjustments, before starting your next project.
- Implement archive plan for original source documents.

1. Research other scanning projects before making any program or budget commitment.

- Learn from the mistakes of others. It's not plagiarism .... it's adaptive management!
- Choose technology appropriate to the project, not vice-versa.
- Assume you'll be migrating to new technology every three-five years; you will be.
- Avoid unique/proprietary solutions that would complicate future migrations.

#### 2. Keep proponents honest.

- Preserve management decision space: commit in increments, measure progress, stop and regroup at the first sign of trouble.
- Deploy as you go. Use savings in each phase to fund the subsequent implementation efforts.
- Be sure to support customer access to legacy systems until digital records are deployed.

3. Test thoroughly; recheck often.

#### 4. Actively manage the entire scanning process.

Labor will be your single biggest cost. Don't under estimate the cumulative value of many efficacious improvements to work process.

#### 5. Don't confuse the means with the end.

Focus on effective delivery of government products and services to the customer while (year to year) staying on schedule and within budget. Too often projects fail because disproportionate attention is given to technology buys.

## 6. Mistakes happen. Plan accordingly.

- Minimize the opportunities: use pick lists, double blind entry, scripted processes, regularly recalibrate equipment, etc.
- Catch mistakes early. The most expensive "do over" is the one caught at the end of a process.
- Tightly control access to master files, especially if they're to become your official records.

# After thoughts ....

✓ Customer confidence in the digital record is inversely related to the frequency of mistakes found.

✓ For the first time we actually know what we have. And we're using the image index to create accession lists for NARA.

# Public Land Tenure title & survey records scanning efforts, to date.

- ✓ Cadastral Survey Plats scanned.

  14,000 original survey plats (Oregon & Washington completed)
- Cadastral Field Note scanning...
  Oregon (completed): 421,649 page images in 796 Volumes
  Washington (to date): 66,871 pages images in 115 Volumes
- ✓ Master Title/Use plats scanned.
  6,275 township plats (Oregon & Washington completed)
- ✓ Historic Indices scanned.
  19,502 image pages (Oregon & Washington completed)
- Aerial Photo scanning...
  1930's to present: 20,000 of 300,000 historic photos, to date

## Public record utilization, to date.

### January 2002: WAN access to BLM staff.

30,000 title and survey images available

### October 2002: Internet access to public.

50,000 title and survey images available

2,300 public hits in first month on Internet

#### June 2005: Current Status.

548,000 title and survey images available

12-15,000 public hits per month

